



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1430
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,119	10/21/2003	Clayton Gibbs	TI-34137	3655
23494	7590	10/11/2006	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED			FRANKLIN, RICHARD B	
P O BOX 655474, M/S 3999			ART UNIT	
DALLAS, TX 75265			PAPER NUMBER	
			2181	

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/690,119	Applicant(s) GIBBS ET AL.	
	Examiner Richard Franklin	Art Unit 2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

[Signature]
FRITZ FLEMING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100
10/6/2006

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 5 and 9 – 11 have been examined.

Response to Arguments

2. Applicant's arguments with respect to claims 1 – 5 and 9 – 11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 – 5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicants Admitted Prior Art (hereinafter AAPA; All references to AAPA will refer to the publication of the current patent application, US Patent Application Publication No. 2005/0086400).

As per claim 1, AAPA teaches a method of transferring bursts of data between a processor device (Figure 1 Item 100) and a FIFO device (Figure 1 Items 101 and 102), the transfer comprising triggering a burst transfer (Paragraph [0006] Lines 1 – 5) at the processor from a change of state of a FIFO output signal (Paragraph [0006] “half full flag HF”) by the FIFO device, the change of state being an occurrence of a triggering event within the FIFO device (Paragraph [0006] Lines 1 – 5). AAPA inherently teaches

inhibiting the FIFO device from changing state of the FIFO output signal thereby inhibiting of triggering of any further burst transfers until a current burst transfer is complete. This is inherent to AAPA because if, for example, the burst transfer length of AAPA is not large enough to set off the triggering event (very small compared to the FIFO size), then the triggering event of AAPA would not be triggered even after the completion of the current burst transfer. For example, if the FIFO has a size of 1024 words, and the half full flag switches to a high state when 512 or more words are stored in the FIFO. If the length of a burst write is 128 words and the FIFO is initially empty, the execution of a burst write into the FIFO will not set off a change in the half full flag, because only 128 words will be stored in the FIFO. Therefore, the logic that calculates the half full flag inhibits the changing of the half full flag state, because the triggering event was not met. There is no limitation in the claim that states that the current burst transfer will trigger the triggering event. Therefore, the interpretation given above is reasonable.

As per claim 2, AAPA also teaches wherein the triggering event is a change in a FIFO fullness indicator flag (Paragraph [0006] "half full flag HF").

As per claims 3 and 4, AAPA also teaches wherein the FIFO fullness indicator denotes less than or greater than half full (Paragraph [0007] Lines 1 – 3); and the triggering event is changing from the fullness indicator denoting less than half full to greater than half full (Paragraph [0007] Lines 4 – 7); and the triggering event is

Art Unit: 2181

changing from the fullness indicator indicating greater than half full to less than half full (Paragraph [0007] Lines 12 – 15).

As per claim 5, AAPA also teaches wherein the burst transfer includes transfer of a predetermined amount of data in a fixed number of sequential clock cycles (Paragraph [0002] Lines 12 – 15 and Paragraph [0004] Lines 2 – 4).

As per claim 9, AAPA also inherently teaches wherein the step of inhibiting the FIFO device from changing state of the FIFO output signal, thereby inhibiting further burst transfers includes further inhibiting the FIFO device from changing state of the FIFO output signal until a predetermined number of clock cycles following completion of the current burst transfer. This is inherent to AAPA because in the situation described above in claim 1, after the completion of the burst transfer, the output flag will not change until possibly during or after another burst transfer. Therefore, after the current burst transfer, the flag will not change, and will remain unchanged until the triggering event is met.

Allowable Subject Matter

4. Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

Claim 10 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims because the prior art of record fails to teach alone or in combination ***the processor device supplying to the FIFO device an end of burst signal upon completion of a burst transfer, and inhibiting the FIFO device from changing state of the FIFO output signal until receipt of the end of burst signal***, as required by dependent claim 10, ***in combination with the other recited claim limitations*** (emphasis added). Applicants Admitted Prior Art (hereinafter AAPA) inherently teaches inhibiting the FIFO device from changing state of the FIFO output signal, but does not teach inhibiting the FIFO device from changing state of the FIFO output signal until the receipt of the end of burst signal.

Claim 11 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims because the prior art of record fails to teach alone or in combination ***the FIFO device counting a predetermined number of cycles corresponding to a burst transfer size, and inhibiting the FIFO device from changing state of the FIFO output signal until completion of counting the predetermined number of cycles***, as required by dependent claim 11, ***in combination with the other recited claim limitations*** (emphasis added). Applicants Admitted Prior Art (hereinafter AAPA) inherently teaches inhibiting the FIFO device from changing state of the FIFO output signal, but does not teach inhibiting the FIFO device

from changing state of the FIFO output signal until completion of counting a predetermined number of cycles.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Franklin whose telephone number is (571) 272-0669. The examiner can normally be reached on M-F.

Art Unit: 2181

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz Fleming can be reached on (571) 272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Richard Franklin
Patent Examiner
Art Unit 2181


FRITZ FLEMING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100
10/6/2006